

SONY[®]

HD-SD DOWN CONVERTER BOARD

HKDW-702

INSTALLATION MANUAL
1st Edition (Revised 2)

⚠ 警告

このマニュアルは、サービス専用です。
お客様が、このマニュアルに記載された設置や保守、点検、修理などを行うと感電や火災、人身事故につながる可能性があります。
危険をさけるため、サービストレーニングを受けた技術者のみご使用ください。

⚠ WARNING

This manual is intended for qualified service personnel only.
To reduce the risk of electric shock, fire or injury, do not perform any servicing other than that contained in the operating instructions unless you are qualified to do so. Refer all servicing to qualified service personnel.

⚠ WARNUNG

Die Anleitung ist nur für qualifiziertes Fachpersonal bestimmt.
Alle Wartungsarbeiten dürfen nur von qualifiziertem Fachpersonal ausgeführt werden. Um die Gefahr eines elektrischen Schlages, Feuergefahr und Verletzungen zu vermeiden, sind bei Wartungsarbeiten strikt die Angaben in der Anleitung zu befolgen. Andere als die angegebenen Wartungsarbeiten dürfen nur von Personen ausgeführt werden, die eine spezielle Befähigung dazu besitzen.

⚠ AVERTISSEMENT

Ce manuel est destiné uniquement aux personnes compétentes en charge de l'entretien. Afin de réduire les risques de décharge électrique, d'incendie ou de blessure n'effectuer que les réparations indiquées dans le mode d'emploi à moins d'être qualifié pour en effectuer d'autres. Pour toute réparation faire appel à une personne compétente uniquement.

Section 1 Installation

1-1. HKDW-702 Configuration

The HKDW-702 consists of the following:

- DC-110A board (1)
- Shield plate (1)
- Screw P2 × 4 (2)
- Precision screw P1.4 × 3.5 (3)
- VIDEO OUT assembly (1)
- Installation Guide (1)
- Installation Manual (1)

In addition to the Installation Manual, the following manuals are available.

- **HDW-750 Operation Manual (Supplied with HDW-750)**

This manual is necessary for application and operation of HDW-750.

Part number: 3-205-316-0X

- **HDW-750, HKDW-702/703 Maintenance Manual Volume 1 (Available upon request)**

This manual intended for use by trained system and service engineers describes (the circuit overview, character display functions, the main part replacements, electrical alignment, etc.) required for parts-level service.

For obtaining, contact your local Sony Sales Office/Service Center.

Part number: 9-968-591-0X

- **HDW-750, HKDW-702/703 Maintenance Manual Volume 2 (Available upon request)**

This manual is intended for use by trained system and service engineers, and describes the information regarding the parts list, semiconductor pin assignments, block diagrams, schematic diagrams and board layouts.

For obtaining, contact your local Sony Sales Office/Service Center.

Part number: 9-968-582-0X

1-2. Installation Procedure

Outline of the installing the HKDW-702 to the HDW-750 is listed as follows. For the details of the installation work, refer to the respective sections.

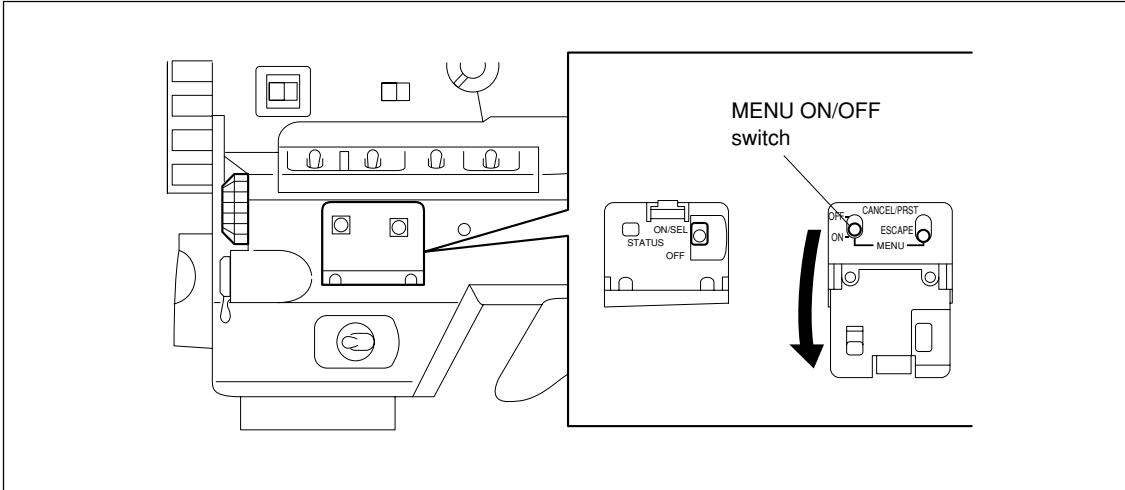
Installation procedure	Sections describing the detailed procedure
1. Confirming the AT ROM Version	1-3. Confirming the AT ROM Version
2. Opening the Inside Panel	1-4. Opening and Closing the Inside Panel
3. Installing the VIDEO OUT Assembly	1-5. Installing the VIDEO OUT Assembly
4. Installing the HKDW-702 (DC-110A Board)	1-6. Installing the HKDW-702 (DC-110A Board)
5. Closing the Inside Panel	1-4. Opening and Closing the Inside Panel
6. Setting the SD VBS SETUP level*	1-7. Setting the SD VBS SETUP Level
7. Operation Check Select an analog composite signal or SDI signal to be output from the VBS/SDI OUT connector. Confirm that the selected signal is output from the connector.	4-8-2. Select the output signal. (Refer to HDW-750 Operation Manual.)

* : This item is required when the setup level is set to 7.5 %.

1-3. Confirming the AT ROM Version

Installation of the HKDW-702 requires that the ROM (IC38) on the AT-143 board of the HDW-750 is version 1.32 or higher. Confirm the ROM version before starting installation as follows.

1. Turn on the power of the HDW-750.
2. While pressing the rotary encoder, turn on the MENU ON/OFF switch to open the top menu.



3. Select the DIAGNOSIS menu and press the rotary encoder.
4. Rotate the rotary encoder until the ROM VERSION display appears.
5. Confirm that the version display of AT is 1.32 or higher.

```
? 03OROM VERSION
AT      : Ver 1.32
SS      : Ver x.xx
FP      : Ver x.xx
EQ      : Ver x.xx
```

Note

If the version display of AT is earlier than 1.32, upgrade of the ROM is required. Refer to the Maintenance Manual Volume 1 of the HDW-750, HKDW-702/703 for the upgrade procedure.

1-4. Opening and Closing the Inside Panel

Opening the Inside Panel

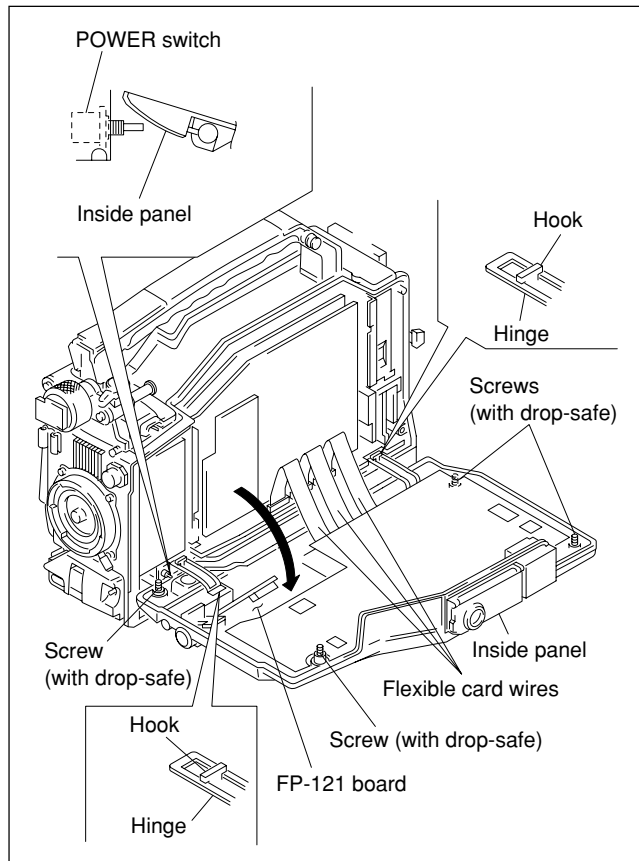
Note

Be sure to turn off the POWER switch, unplug the AC power cord or remove the battery before starting the following procedure to prevent the inside of the unit from damage.

1. Loosen the four screws (with drop-safe) and open the inside panel in the direction of the arrow.

Notes

- Folding the flexible card wire connected to the FP-121 board shortens the life of the flexible card wire significantly. Be very careful when handling the flexible card wire not to fold it.
- When opening the inside panel, place the unit so that the inside panel is positioned on top of the POWER switch.



Closing the Inside Panel

1. Confirm that both of the right and left hinges are engaged with the hooks of the chassis correctly.
2. Attach the inside panel and fix it with the four screws (with drop-safe).

Note

Standard tightening torque value :

Screw (with drop-safe, B3 × 12)
0.8 N•m (8.0 kgf•cm)

Note

Be careful not to pinch the harness between the inside panel and chassis.

1-5. Installing the VIDEO OUT Assembly

1. Remove the inside panel.
2. Remove the two screws (P2 × 4) and remove the CN BOX sub panel.
3. Attach the VIDEO OUT assembly with the two screws (P2 × 4) by routing the coaxial cable through the groove.

Notes

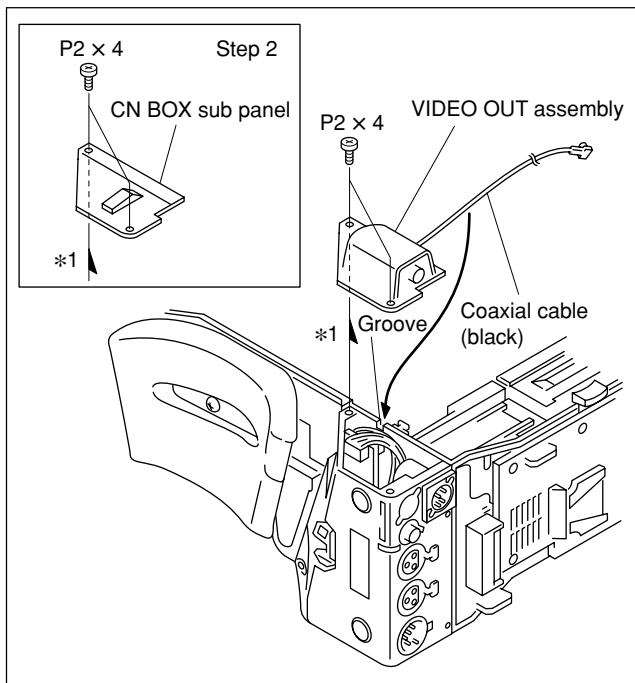
- When installing the VIDEO OUT assembly, route the coaxial cable through a groove.
- If the coaxial cable is pinched by the VIDEO OUT assembly and the frame, the coaxial cable can be damaged.

Note

Standard tightening torque value :

Screw P2 × 4

$16 \text{ to } 22 \times 10^{-2} \text{ N}\cdot\text{m}$ (1.6 to 2.2 kgf•cm)



1-6. Installing the HKDW-702 (DC-110A Board)

1. Align the hole of the shield plate with connector (CN6) of the DCP-28 board and insert the connector (CN6) of the DC-110A board to the connector (CN6) of the DCP-28 board.
2. Attach the DC-110A board with the three screws (P1.4 × 3.5) supplied.

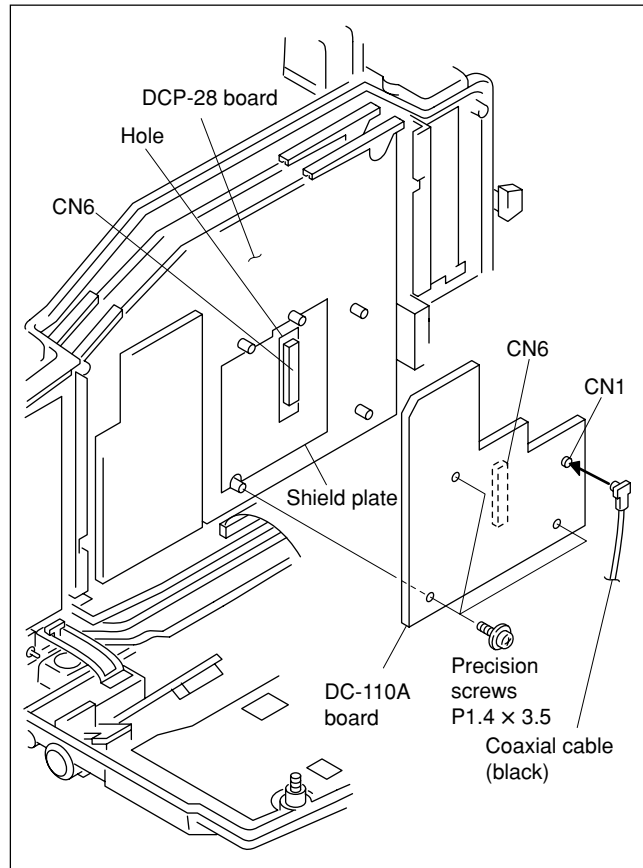
Note

Standard tightening torque value :

Screw P1.4 × 3.5

$0.1 \text{ N}\cdot\text{m}$ (1.0 kgf•cm)

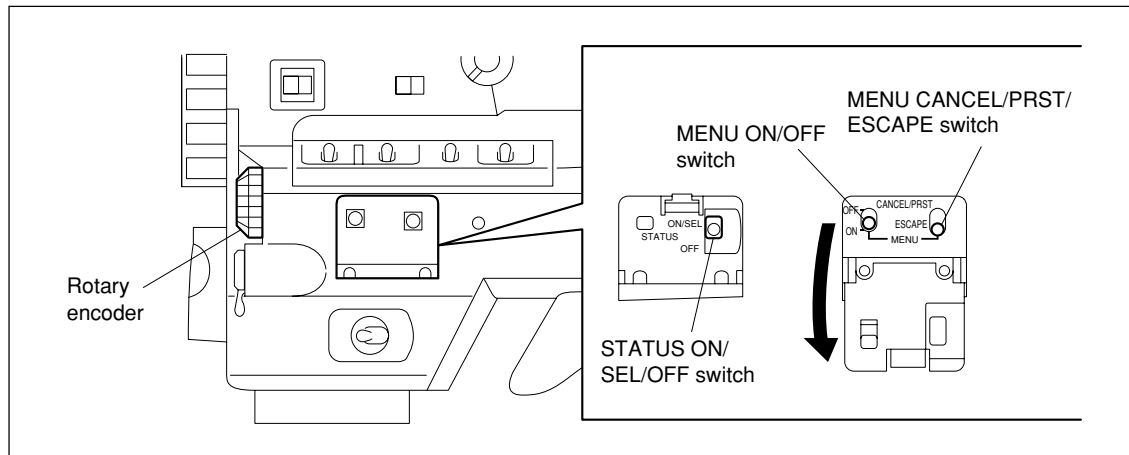
3. Connect the coaxial cable (black) coming from the VIDEO OUT assembly to the connector (CN1) of the DC-110A board.



1-7. Setting the SD VBS SETUP Level

Perform the following procedure only when the VBS SETUP level is desired to be set to 7.5%.

Switch description



1. Open the inside panel and set the switch S1-1 on the AT-143 board to ON.
2. Turn on the main power.
3. While pressing the rotary encoder, set the MENU ON/OFF switch to ON and open the TOP menu.
4. Select the MAINTENANCE menu and press the rotary encoder.
5. Let the SD LEVEL ADJ display appear on the screen and press the rotary encoder.
6. Move the cursor (→) to SD VBS SETUP LEVEL and press the rotary encoder so that the VBS SETUP is set to 7.5%.

```
?S04OSD LEVEL ADJ
SD VBS LEVEL : 0
→SD VBS SETUP LVL : ? 7.5%
SD VF Y LEVEL : 0
SD VF R-Y LEVEL : 0
SD VF B-Y LEVEL : 0
```

7. Turn off the main power.
8. Open the inside panel and set the switch S1-1 on the AT-143 board to OFF.
9. Turn on the main power.
10. While pressing the rotary encoder, set the MENU ON/OFF switch to ON and open the TOP menu.
11. Select the FILE menu and let the ALL FILE display appear on screen. Press the rotary encoder.
12. Move the cursor (→) to 3SEC CLR PRESET and press the rotary encoder to ON.

```

? 03OALL FILE
ALL FILE LOAD      : EXEC
ALL FILE SAVE      : EXEC
F. ID : □□□□□□□□□□□□□□□□
ALL PRESET         : EXEC
STORE ALL PRESET  : EXEC
CLEAR ALL PRESET  : EXEC
→3SEC CLR PRESET : ?   ON
    
```

13. While pressing the rotary encoder, set the MENU ON/OFF switch to ON and open the TOP menu.
14. Select the MAINTENANCE menu and press the rotary encoder.
15. Let the SD LEVEL ADJ display appear on the screen and press the rotary encoder.
16. Move the cursor (→) to SD VBS SETUP LEVEL and keep pressing the MENU CANCEL/PRST/ESCAPE switch for three seconds or more.
17. When the message on the second line from the top changes from [PRESET DATA OK?] to [CLEAR PRESET DATA OK?], detach your hand from the MENU CANCEL/PRST/ESCAPE switch.

```

? 04OSD LEVEL ADJ
CLEAR PRESET DATA OK? ← "PRESET DATA OK?"
SD VBS LEVEL          : 0
→SD VBS SETUP LVL : ● 7.5%
SD VF Y LEVEL         : 0
SD VF R-Y LEVEL       : 0
SD VF B-Y LEVEL       : 0
    
```

changes to
CLEAR PRESET DATA OK?

18. Press the MENU CANCEL/PRST/ESCAPE switch again.
19. Check that the SD VBS SETUP LVL is set to 7.5%.
20. Turn off the main power.

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